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Case Report

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SURGICAL CILLIATED CYST OF MAXILLARY SINUS REGION BY INDIRECT TRAUMA – A CASE REPORT

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ABSTARCT

Surgical ciliated cyst is a rare true epithelial lined cyst that originates from a mucosal lining or gland. It is believed that it occurs either after sinus surgical procedures or any trauma to the maxillary sinus region. Clinically they can be confused as any other cyst of maxillary sinus therefore proper history is necessary for the diagnosis. This article reports a case involving right maxilla in a 32 year old female patient with a history of trauma.

INTRODUCTION

Surgical ciliated cyst is a benign cyst of maxillary antrum which occurs after a period of time following trauma or surgery. It can be also named as postoperative maxillary cyst, paranasal cyst or respiratory implantation cyst, postoperative maxillary cyst, traumatic ciliated cyst, and paranasal cyst.[1] Surgical ciliated cyst was first described in 1927 in Japan by Kubo which occurs most commonly in Japan (2).[2] Surgical ciliated cyst occurs due to separation of sinus lining that forms a cystic cavity lined by epithelium after any trauma or surgical procedure in the maxillary antrum region. It most commonly occurs with in the age group of 5 to 49 years.[2] The highest incidence is between the fourth and sixth decades of life (Bulut et al., 2010). Most cases were located in the molar and premolar regions due to their proximity to the maxillary sinus.[1] Diagnosis of such cases poses a challenge due to its similarity to other cyst or tumour of maxillary sinus. Here we present a case of surgical ciliated cyst in 32 year old female in right maxillary sinus region.

CASE REPORT

A 32 year old female patient reported to maxillo facial dental clinic with a chief complaint of swelling in the right side of maxillary sinus region since 2 months. Patient also gave history of trauma in the same region a year back. There was no history of pain associated. On clinical examination, there was a swelling from 13 to 17 region extending from maxillary anterior trumpet. The mucosa Over lying the swelling appears to be normal and the teeth which were associated shows no abnormalities. On radiographic examination there was radiolucent area extending from 13 to 17 involving maxillary sinus. The tooth appeared to be vital. The cortical plate was not showing expansion. Aspiration appeared to be negative. On the basis of clinical and radiographic feature a provisional diagnosis of cystic lesion was given. Incision biopsy was performed and the specimen was sent for histopathological examination. On microscopic examination, there was pesudostratified ciliated squamous epithelial lining continuing with single layer of cuboidal cell were revealed (fig2& 3). On the basis of histopathological evidence the diagnosis of surgical ciliated cyst was given.

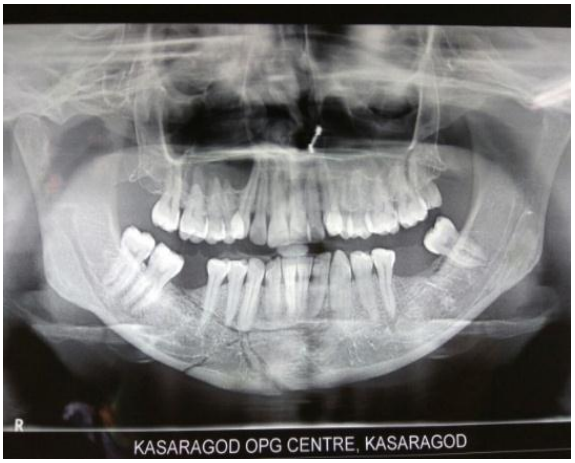

Fig 1: Radiograph (OPG) showing radiolucent area extending from 13 to 17 region involving maxillary sinus and facture of body of the mandible crossing the midline.

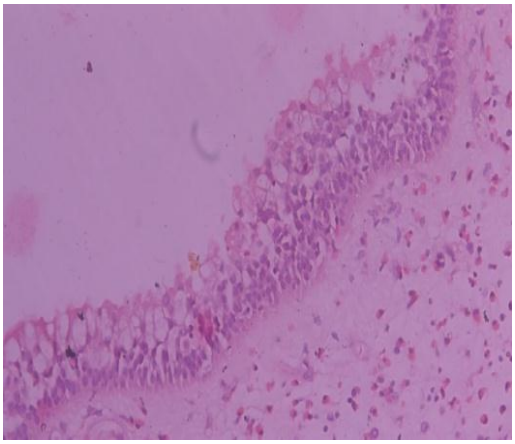

Fig 2: Photomicrograph showing pesudostratifiled ciliated squamous epithelium.

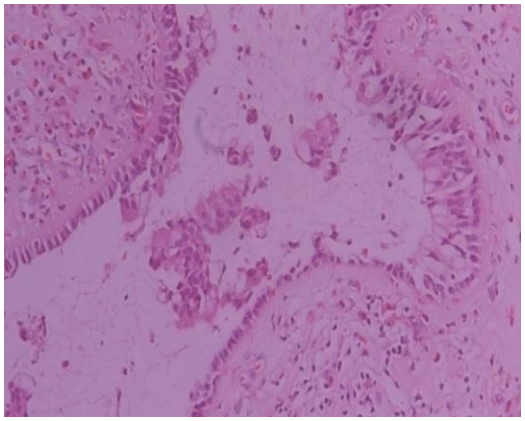

Fig 3: Photomicrograph showing single layer of cuboidal epithelium continuous with pseudostratified ciliated squamous epithelium.

DISCUSSION

Surgical ciliated cyst of the maxilla was first reported by Kubo in 1927. Surgical ciliated cyst of the maxilla is a benign cyst of the maxillary sinus.[1] It can occur as a result of surgical intervention done for chronic maxillary sinusitis such as Caldwell Luc antrostomy, le fort I osteotomy for orthoganthic surgery, traumatic tooth extraction especially premolars and molars, oro antrul fistula, alveolar bone grafting in sinus region.[1] Pathogenesis of the cyst formation was thought to be entrapment of maxillary sinus lining soon after the surgery. it can also caused by trauma to maxillary sinus region, Following the entrapment, inflammatory process induces cystic changes within the trapped respiratory mucosa leading to cyst formation. The cyst then expands as a result of osmotic differences from surrounding tissue.[1] The accurate prevalence of this cyst is not known, but it is estimated to have a 3–20% incidence in Japan. It has a slight male predilection with a wide presenting age range from 21 to 80 years, and it is thought to occur 3-61 years following a maxillary surgical procedure.[6] The clinical presentation can range from asymptomatic and can enlarge causing an aesthetic problem or acute swelling and pain, due to secondary infection.[3] Radiographically the cyst is appears as a unilocular or multilocular radiolucency with the capability to expand into the canine fosse and also to the nasal wall of sinus.[2] Histologically, these cysts are lined by pseudostratified ciliated columnar epithelium, with squamous metaplasia. It can also show combination of ciliated, cuboidal, and squamous epithelium with varying numbers and layers of mucous cells. The underlying connective tissue can be cellular or fibrotic. Extensive haemorrhage and foci of calcification may also be present.[6] The treatment was discussed by Yoshikawa et al. in 1982, proposed enucleation or marsupialisation of the cyst. The marsupialisation was the preferred method for unilocular cysts with a thin wall or large cysts with extensive bone perforation.[2]

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